3M™ Wireless Communication System Model XT-1

Digital clarity, proven reliability

Operating Instructions

3M

3M Building and Commercial Services Division
3M™ Wireless Communication System Model XT-1

Operating Instructions

3M

Table of Contents

Overview

Safety Information

Safety Rules

Read, understand, and follow all safety information contained in these instructions prior to installation & operation of the 3M™ Wireless Communication System Model XT-1. Failure to follow all instructions listed could result in electrical shock, fire and/or other personal injury. Retain these instructions for future reference.

Intended Use

The 3M™ Wireless Communication System Model XT-1 is intended for use to provide 2-way radio-frequency audio communication in quick service drive-through restaurants and convenience stores.

The system must be installed as specified in the 3M™ Wireless Communication System Model XT-1 Installation Instructions and operated as specified in 3M™ Wireless Communication System Model XT-1 Operating Instructions in quick service drive-through restaurants and convenience stores. It has not been evaluated for other uses or locations.

Signal Words

Explanation of Signal Word Consequences	
⚠ **WARNING:**	**Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury and/or property damage.**
⚠ **CAUTION:**	**Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury and/or property damage.**
CAUTION:	**Indicates a potentially hazardous situation, which, if not avoided, may result in property damage.**

Product Safety Labels

Explanation of Product Safety Labels	
	Attention: Read accompanying documentation
	Warning: Risk of Electric Shock

System Warnings

⚠ WARNING
To reduce the risks associated with hazardous voltage: • Disconnect power to the receptacle before installing or removing the Base Station Power Supply. When removing receptacle cover screw, cover may fall across plug pins or receptacle may become displaced. Use only with duplex receptacle having center screw. Secure unit in place by receptacle cover screw. • If power supply is supplied with a grounding pin, connect directly to a grounding receptacle – 3 prong. **To reduce the risks associated fire & property damage:** • Do not open, crush, expose to heat above 200 °F or incinerate the battery. • Always replace batteries, battery chargers and power supplies with 3M approved units acceptable for use in this system to avoid system function & safety concerns. • Do not modify this 3M™ Wireless Communication System Model XT-1. Install only 3M provided components. Use only 3M approved system replacement parts.

⚠ CAUTION
To reduce the risks associated with environmental contamination due to battery pack & to lead in the solder: • Dispose of batteries, power supplies, battery charger and base station in accordance with federal, state & local requirements. If preferred, return these components to 3M Service Center for disposal.

Other Conventions

Important Notes and Notes

Important Note:
It is strongly recommended that you pay attention to information inside of an "Important Note:" box.

Note:
You may find information inside of a "Note:" box helpful.

FCC and Industry Canada Information

> **Note:**
> This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

> **Note:**
> This Class A digital apparatus also complies with Canadian ICES-003.

> **Note:**
> This Product contains an intentional radiator operating at 2.4GHz.

FCC and IC Identifiers:

Headset:
FCCID : VJV-9008323
IC : 7330A-9008323
Base Station:
FCCID : VJV-9008251
IC : 7330A-9008251

> **Note:**
> Modifications to this device shall not be made without the written consent of 3M Company. Unauthorized modifications may void the authority granted under Federal Communication Rules and Industry Canada Rules permitting the operation of this device.

Configuration

Enter Configuration Mode

Configuration mode is a passcode-protected area that contains most of the configuration options for the base station system. Using the access provided for users it is possible to set up all of the functionality of the system.

To enter the configuration mode:

- From the Run mode menu, press and hold **Mode**.
- While continuing to hold **Mode**, enter your user passcode.
- Release **Mode**. The display will show the user name and ID number (e.g., User1 ID = 1)

> **Notes:**
> The default user password is 1234.
>
> There are two levels of passcode: installers and users. Using a user's passcode permits you into the entire system menu.

Navigating the Base Station Display

Once you are in the configuration mode, you can use the buttons on the base station display to update all configuration parameters.

Interpreting Display Information

Depending upon what you are doing, or what you can do, text on the display screen is handled according to the following conventions:

Static or Informational	Static, informational, or non-editable text has no markings on it.
<Editable, not selected>	Editable items that are not currently-selected appear inside of outwardly-pointing pointers.
>Editable, Selected<	Editable items that are currently-selected appear inside if inwardly-pointing pointers.
→ Editable, in Edit Mode ←	Editable items that are currently being edited have arrows pointing inwardly.
[Variable, not Editable]	Variable items that cannot be edited appear inside of square brackets. In some cases the item is editable, but only from a different location in the menu.
{ information }	An on-screen explanation of a key point or reminder appears within curved brackets.

Buttons

Following is a brief description of the buttons on the display and their functions.

Directional arrow (►◄▼▲) buttons	You can use these buttons to scroll around when navigating the menus. When you are editing information, the up and right arrows scroll "up" (increment) and the down and left arrows scroll "down" (decrement) list of values.
Number/letter (**0** – **9**) buttons	You can use these buttons to specify exact numbers or letters in fields that permit them. Each time you press button, the result changes to the next available number or letter. For instance, pressing the 7 button three times creates a letter "t" (7-s-t). See **Service** button below for creating upper-case letters.
Mode (Exit) button	In run mode, you must press and hold **Mode** while entering your passcode to enter user or installation service.
	In user and installation service modes, use the **Mode** button to exit from a current field that you are editing without saving any changes or to go upward (backward) in the configuration menus.
Enter (Select) buttons (both buttons perform the exact same functions)	Use the **Enter** button to execute the current selection:
	Pressing **Enter** on a menu opens the menu and shows you its submenu items.
	Pressing **Enter** on an editable field switches you to edit mode so you can change the value in the field using the arrows and number/letter buttons where applicable.
	Pressing **Enter** while in edit mode saves the changes you have made and exits edit mode.

Service (Shift) button	Use the **Service** button to access upper-case letters or to initiate a service call to 3M or as a confirmation in some items.

Pressing and holding the **Service** button while editing a field that permits alphabet letter entry (e.g., store address) shifts the letter to upper case.

In run mode, press and hold the **Service** button, then enter your passcode to initiate an internet request for help from 3M. A 3M representative will call your store telephone number shortly after you initiate the request. Your base station must be connected to the internet for this function to work. If you press the **Service** button and do not enter a passcode, the base station will go to a Service screen used for installation and troubleshooting.

The directional arrows can be used for scrolling from one menu item to another or to scroll through available choices when editing fields.

Configuring with a Computer

All of the procedures in this chapter assume that you are using the display to configure your base station(s). However, the base station can function as a web server, which means it can be configured using a PC. The web-server functionality is disabled on a new base station, so it must be enabled and configured on site.

To set up web-server functionality:

- Connect the base station:
  - **Peer-to-Peer** – a direct connection between the base station and the PC using a crossover cable
  - **Private network** – a connection between the base station and a router, switch or hub using an Ethernet cable. The PC is somewhere on the same network.
- Enter the configuration mode, see page 11.
- Select `16 Network Setup`.
- Change the values for `IP address`, `subnet mask`, `default gateway`, `E-mail server`, and `Your E-Mail Address Suffix` according to the table below.
- Cycle the power to the base station.
- Enter the configuration mode.
- Select `16 Network Setup`.
- Change the values for `web server enabled` and `email enabled` to `Yes`.
- Cycle the power to the base station.

Setting		If Peer-to-Peer	If Private Network
IP Address	Base Station	192.168.99.2	192.168.0.110 (or another unused address in the same address space as the DHCP address)
	PC	192.168.99.1	DHCP
Subnet mask	Base Station	255.255.255.0	255.255.255.0
	PC	255.255.255.0	No requirement
Default gateway	Base Station	192.168.99.1	192.168.0.1 (or the switch, router, or hub address)
	PC	Leave blank	192.168.0.1 (or the switch, router, or hub address)
E-mail server: 192.28.32.161			
Your E-mail address suffix: mmm.com			

Logging into the Base Station with a PC

Once the base station is connected and configured you can log into it from any other computer on the network and operate the station as you would from the local interface.

To log into the base station:

- Using a web browser, type in the IP address of the base station in the browser's Address bar, then press **Enter**.
- Type in your user name and password, then press **Enter**.
    - The default user name is "User1"; the default password is "1234".
    - Do NOT type the space between User and the user number (e.g., type "User5" instead of "User 5").
    - If the password has been changed, you can log in using the base station to find out what it is (`13 Change Passcodes` > `Change User Passcodes`, then look at the current code).

Change Basic Volume Settings

> **Note:**
> All volume settings should be adjusted during normal or peak business hours. Adjusting them during slow times will likely produce volume settings that are too low.

> **Note:**
> Inbound and outbound are always defined from the perspective of the headset.

Inbound Microphone Volume

Changing the inbound microphone volume affects the sound volume coming from the customer order point microphone.

To turn up or down the inbound microphone:

- Enter the configuration mode, see page 11.
- Select a new value for `01 Drivethru Volume` > `Inbound Mic Volume`. The range is 0 (silent) to 20 (maximum).

Outbound Talk Volume

Changing the outbound talk volume affects the volume of the speaker at the customer order point.

> **Note:**
> To avoid feedback, set the outbound talk volume as low as possible.

To change the outbound talk volume:

- Enter the configuration mode, see page 11.
- Select a new value for `01 Drivethru Volume` > `Outbound Talk Volume`. The range is 0 (silent) to 20 (maximum).

Vehicle Alert Volume

Changing the vehicle alert volume affects the volume of the vehicle alert signal on the headsets.

To change the vehicle alert volume:

- Enter the configuration mode, see page 11.
- Select a new value for `01 Drivethru Volume` > `Vehicle Alert Volume`. The range is 0 (silent) to 20 (maximum).

Outbound Greeter Message Volume

Changing the outbound greeter message volume affects the sound volume of the custom greeting messages and the system internal greetings ("Store Closed" and "Pull Forward").

To turn up or down the greeter message volume:

- Enter the configuration mode, see page 11.
- Select a new value for `01 Drivethru Volume` > `Greeter Message Volume`. The range is 0 (silent) to 20 (maximum).

Change the Monitor Volume

The monitor is an additional speaker that can be used to monitor drive thru communication without a headset, typically in the kitchen. If the monitor has a volume control built into it, you can use it to control the overall volume level of the speaker. To be more specific about which elements you want to control, follow the instructions in the following sections.

Inbound Listen

Changing the inbound listen volume affects how loudly the monitor plays the inbound (customer order point) communication. You can also disable the monitor playing inbound sounds.

To change the inbound listen monitoring settings:

- Enter the configuration mode, see page 11.
- Select `02 Monitor Volume`.
- To enable or disable the monitor playing the inbound sounds, change the value for `Inbound Listen: Enable` to `ON` or `OFF`.
- To change the volume level, select a new value for `Inbound Listen: Volume`. The range is 0 (silent) to 20 (maximum).

Outbound Talk

Changing the outbound talk volume affects how loudly the monitor plays the outbound (order taker) communication. You can also disable the monitor playing outbound talk.

> **Note:**
> To avoid feedback and echo, set the outbound talk volume as low as possible.

To change the outbound talk monitoring settings:

- Enter the configuration mode, see page 11.
- Select `02 Monitor Volume`.
- To enable or disable the monitor playing the outbound talk, change the value for `Outbound Talk: Enable` to `ON` or `OFF`.
- To change the volume level, select a new value for `Outbound Talk: Volume`. The range is 0 (silent) to 20 (maximum).

Vehicle Present

Changing the vehicle present volume affects how loudly the monitor plays the vehicle present tone. You can also disable the monitor playing the vehicle present tone.

To change the vehicle present monitoring settings:

- Enter the configuration mode, see page 11.
- Select `02 Monitor Volume`.
- To enable or disable the monitor playing the vehicle present tone, change the value for `Vehicle Present: Enable` to `ON` or `OFF`.
- To change the volume level, select a new value for `Vehicle Present: Volume`. The range is 0 (silent) to 20 (maximum).

Vehicle Approach

Some sites are equipped with a vehicle approach detector, which alerts you when a vehicle enters the parking lot or drive through approach lane. If your site is equipped with the detector, you can change the volume at which the tone is played on the monitor. Also, if you do not wish to hear the tone, you can disable it.

To change the vehicle approach monitoring settings:

- Enter the configuration mode, see page 11.
- Select `02 Monitor Volume`.
- To enable or disable the monitor from playing the vehicle approach tone, change the value for `Vehicle Approach: Enable` to `ON` or `OFF`.
- To change the volume level, select a new value for `Vehicle Approach: Volume`. The range is 0 (silent) to 20 (maximum).

Page Messages

Paging is headset-to-headset communications. Changing the page message volume affects how loudly the monitor plays internal paging messages. You can also disable the monitor playing internal paging messages.

> **Note:**
> To avoid feedback and echo, set the volume as low as possible.

To change the page message volume monitoring settings:

- Enter the user service mode, see page 11.
- Select `02 Monitor Volume`.
- To enable or disable the monitor playing internal paging messages, change the value for `PAGE Messages: Enable` to `ON` or `OFF`.
- To change the volume level, select a new value for `PAGE Messages: Volume`. The range is 0 (silent) to 20 (maximum).

Greeter Messages

Changing the greeter message volume affects how loudly the monitor plays the greeter messages. You can also disable the monitor playing the greeter messages.

To change the greeter message volume monitoring settings:

- Enter the configuration mode, see page 11.
- Select `02 Monitor Volume`.
- To enable or disable the monitor playing greeter messages, change the value for `Greeter Messages: Enable` to `ON` or `OFF`.
- To change the volume level, select a new value for `Greeter Messages: Volume`. The range is 0 (silent) to 20 (maximum).

Change the Night Volume

You can assign a standard reduction in the volume level of the customer order point speaker for night hours when lower volume is typically required. With the night volume set, the system automatically adjusts the volume during night hours, then back to normal during the day.

To change the night volume setting:

- Enter the configuration mode, see page 11.
- Select a new value for `03 Night Volume` > `Reduce DriveThru Volume At Night By`. The range is 0 to the current day volume level.

Notes:
Night Volume is never higher than Day Volume.

Night volume reduction is a subtracted value, not the resulting level; therefore, if it is the same as the day volume level, the speaker will turn off at night.

You cannot change the day outbound talk volume on this screen, only the reduction amount identified above.

Registering Headsets

Each headset must be registered to a base station before it can be used. Once registered, it should not need to be registered again unless it is intentionally removed.

Add Headsets

Each headset has a unique identification number. The number is imprinted on the headset and broadcast to the base station whenever it is turned on.

> **Notes:**
> One headset should not be registered to more than one active basestation at any given site, whether or not the bases are interconnected.
>
> In dual-lane installations, all headsets are registered to Base #1.

To register a headset:

- Enter the base station configuration mode, see page 11.
- Select `04 Registration` > `1 Add New Headsets`.
- Power on the headset when prompted.
- Wait up to two minutes for `{Headset xxxxxxx Has Been Registered!}` to appear at the bottom of the display.
- Repeat step 3 for additional headsets.
- Press **Mode** when finished.

Remove Headsets

Perform the following steps to un-register a lost, destroyed, or otherwise removed headset from the system, including a headset that is sent back to 3M for repair. The headset would have to be registered again at a later date.

- Enter the base station configuration mode, see page 11.
- Select `04 Registration` > `2 Remove Headsets`.
- Scroll to the number of the headset you want to un-register.
- Press **Enter**.

> **Note:**
> If you do not know or have access to the number of the headset to be un-registered, identify the headsets that you want to remain in service and un-register any that remain on the list.

List All Headsets

To see a list of the registered headsets:

- Enter the base station configuration mode, see page 11.
- Select `04 Registration` > `3 List All Headsets`.

Resetting Inactive Days

For any headset, you can manually reset its number of inactive days to zero (see "Change Self Monitoring" on page 25 for information about the inactive days timer).

To reset the inactive days:

- Enter the base station configuration mode, see page 11.
- Navigate to `08 Headset Setup` > `Currently Editing Headset`.
- Press ◄ or ► if necessary to scroll to the headset ID number for the headset you want to reset.
- Select `<CLEAR>`.

Checking Headset Software Revision

To check the software revision number for a headset:

- Enter the base station configuration mode, see page 11.
- Navigate to `08 Headset Setup` > `Currently Editing Headset`.

- Press ◄ or ► if necessary to scroll through the headsets. The software version appears below the headset ID number.

Change Noise Reduction Level

There are several ways to improve the sound quality at the headset using the following settings.

Inbound Microphone Noise Reduction Level

The inbound microphone noise reduction level setting reduces background noise to make it easier to hear speech at the customer order point.

Perform the following steps to increase or decrease the noise reduction level.

- Enter the base station configuration mode, see page 11.
- Make a new selection for `05 Noise Reduction` > `Inbound Mic Noise Reduction Level`. Options are `Off`, `Min`, `Low`, `Med`, `Hi`, and `Max`. You may need to experiment for a setting that works best for your ambient noise environment.

Acoustic Echo Canceller

Perform the following procedure if there is a delayed repetition (echo) of the outbound sound:

- Enter the base station configuration mode, see page 11.
- Make a new selection for `05 Noise Reduction` > `Acoustic Echo Canceller`. Options are `Min`, `Low`, `Med`, and `Max`. You may need to experiment for a setting that works best for your ambient noise environment and staff.

Set System Date and Time

Perform the following procedure to set the system time and date.

- Enter the base station configuration mode, see page 11.
- Change the date and time values for `06 Set Time & Date` in the `Time` and `Date` fields as required. Use the arrows to scroll from one field to the next and type new values over the existing data in the formats shown in parentheses:
  - `HH` = Hours (01 to 24, e.g., 6:00 pm is 18)
  - `MM` = Minutes (01 to 60)
  - `SS` = Seconds (01 to 60)
  - `MMM` = Month (Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, or Dec)
  - `DD` = day (01 to 31)
  - `Year` = Last two digits of the year (00 to 99, `20` is fixed and cannot be changed)

Change Global Settings

Global settings are an assortment of options that you must choose based upon the basic configuration of your system.

Text and Audio Prompts Language

You can choose between English, Spanish, German, and French language for all text and audio prompts, which is essentially all of the factory prerecorded information coming from the base station and all of the printed text on the display.

> **Note:**
> Changing the text and audio prompt language will also change the language of the headset messages.

Perform the following procedure to change the text and audio prompts:

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `Text & Audio Prompts Language` to `English`, `Español`, `Deutsch`, or `Francais`.

Drive Thru Audio Duplex Mode

The system can function using half duplex or full duplex modes. Choosing between the two modes is based upon the desired operation.

> **Note:**
> In half duplex installations, all latching order taking modes and hands free mode are disabled.

Perform the following procedure to change the drive through audio mode:

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `DriveThru Audio Duplex Mode` to `Full` or `Half`.
  - In *half-duplex* systems, when the order taker is speaking, it is impossible to hear any speech coming from the customer order point.
  - In *full-duplex* systems, the order taker can speak and hear speech coming from the customer order point at the same time.

Page Channel Heard by Order Taker

You can enable or disable the order taker from being able to hear any paging while speaking to a customer over the customer order point. This may prevent interference with the order taking process.

Perform the following procedure to enable or disable the order taker hearing pages while talking:

- Enter the base station configuration mode, see page 11.
- Select `07 Global Settings`.
- To enable or disable the monitor playing the outbound talk, change the value for `PAGE Channel Heard by Order Taker:` to `NO` or `YES`.

Number of Base Stations at this Site

When there are two base stations used together (tandem, dual, or side-by-side drive thrus) they must be configured to work together.

Perform the following procedure to enable the two stations to work together:

On the base first station:

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `Number of BaseStations at This Site` to `2`.
- Press **Enter** to implement the change.
- On the first base station, stations, change the value for `07 Global Settings` > `Lane Number of This Base Station` to `1`.

On the second base station:

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `Number of Base Stations at This Site` to `2`.
- Press **Enter** to implement the change.
- On the second base station, stations, change the value for `07 Global Settings` > `Lane Number of This Base Station` to `2`.

Store is Now Closed Prompt

Perform the following procedure to enable or disable the automatic store closed prompt to let customers know in your absence that the store is closed:

> **Note:**
> Make sure that you disable the automatic store closed prompt in stores that are open 24 hours.

- I. Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `"Store is Now Closed" Prompt?` to `Yes` or `No`.

Pull Ahead Prompt

You can let customers know to pull ahead when they are at order point #2 in a tandem drive thru when it is out-of-service.
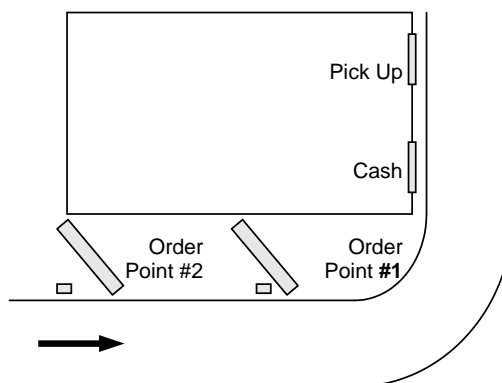

Figure 1

Perform the following procedure on Base #2 to enable or disable the automatic pull ahead for Order Point #2:

- Enter the base station user service mode, see page 11.
- Change the value for `07 Global Settings` > `"Pull Ahead" Prompt (Tandem Only)?` to `Yes` or `No`.

Customer Order Point Prompt Language

Perform the following procedure to select the language(s) of the store closed and pull ahead prompts. The prompts can be spoken in English, Spanish, French, German, or repeated in multiple languages:

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `Order Point Prompts in English?` to `Yes` or `No`.
- Press **Enter** to implement the change or press **Mode** to abandon the change and leave the option at its previous setting.
- Change the value for `07 Global Settings` > `Order Point Prompts in Spanish?` to `Yes` or `No`.
- Press **Enter** to implement the change or press **Mode** to abandon the change and leave the option at its previous setting.
- Change the value for `07 Global Settings` > `Order Point Prompts in French?` to `Yes` or `No`.
- Press **Enter** to implement the change or press **Mode** to abandon the change and leave the option at its previous setting.
- Change the value for `07 Global Settings` > `Order Point Prompts in German?` to `Yes` or `No`.

Order Point TALK with No Vehicle

Perform the following procedure to permit or prevent the order taker to talk to the order point when no vehicle is detected.

- Enter the base station user service mode, see page 11.
- Change the value for `07 Global Settings` > `Order Point TALK With No Vehicle?` to `Yes` or `No`.

Order Takers and Page Messages in Cross Lane Mode

In systems with two customer order points, in cross lane mode, you must specify the number of order takers you will be using to make sure that non-order takers can hear orders being taken on one or both lanes. Similarly, you must specify whether you want page messages to be heard by all headsets or only within each lane.

Perform the following procedure to specify the number of order takers in cross lane mode.

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `Order Takers in CROSS Lane Mode?` to `1` or `2`.
  - If you select 1, non-order takers will hear the orders from lanes 1 and 2.
  - If you select 2, non-order takers will hear only the orders on the lane for which the headset is configured.

Perform the following procedure to enable or disable paging to be heard by operators on both lanes.

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `PAGE Messages Can Cross Lanes?` to `YES` or `NO`.

Detector Type

Because there are two basic types of vehicle detector, pulse and presence, you must specify which type you have in the base station.

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `Vehicle Detector#1` to `Presence` or `Pulse`.

> **Note:**
> Vehicle detector#1 is always the order point.

- For presence type detectors, specify a value for `Vehicle Detector #X Minimum (Seconds)`. Setting a higher number will increase the customer's wait time, but decrease false detections that could be caused by cars driving over the detector without stopping.

> **Notes:**
> When the pulse setting is used, each call must be ended by pressing the page button on the headset.
>
> If you are using a vehicle detector board, the presence or pulse setting should match the dip switch setting on the board.
>
> If the vehicle detector is set to delay (via its own dip switches) and you set a delay in the base station, the delays are additive: you could end up with a longer than expected total delay.

Kitchen Noise Reduction

Activating this option reduces the amount of background kitchen noise picked up by the order takers headset microphone and transmitted to the order point speaker.

Perform the following procedure to enable or disable Kitchen Noise Reduction.

- Enter the base station configuration mode, see page 11.
- Change the value for `07 Global Settings` > `Kitchen Noise Reduction` to `DYNAMIC` or `OFF`.

> **Important Notes:**
> By default, the Kitchen Noise Reduction is set to DYNAMIC.
> For this feature to function, all "signed-on" headsets must be of version 5.11 or later.
> If even one headset of an older version signs on, the:
> > feature will automatically be disabled despite it's value remaining set as DYNAMIC
> > base station emits 3 audible chirps and
> > Run Screen will display a message
> > > "`Headset <XXXXXXX> allows kitchen noise`".

In the event the Kitchen Noise Reduction feature has been disabled due to a headset with an older version of software having signed on, use the base station's menu to identify and remove the offending headset(s) before restarting the base station, in order to restore the feature.

1. Identify the serial number(s) of the headset or headsets that have a software version other than v5.11

- Enter the base station configuration mode, see page 11.
- Navigate to `08 Headset Setup` > `Currently Editing Headset`.
  - Press ◄ or ► if necessary to scroll through the headsets. The software version appears below the headset ID number.

2. Unregister the headset(s) identified above by performing the following steps

- Enter the base station configuration mode, see page 11.
- Select `04 Registration` > `2 Remove Headsets`.
- Scroll to the number of the headset you want to un-register.
- Press **Enter**.

3. Rebooting the base station will now restore the Kitchen Noise Reduction feature.

Order Taking Modes Setup

Perform the following procedure to enable or disable some of the seven different order taking modes from appearing on the Run Menu:

- Enter the base station configuration mode, see page 11.
- Navigate to `09 O.T.  Modes Setup`.
- Change the value for each of the following options to `Yes` or `No`:
  - `Manual Listen/Push To Talk`
  - `Manual Listen/Manual Latching Talk`
  - `Auto Listen/Push To Talk`
  - `Auto Listen/Manual Latching Talk`
  - `Hands Free`
  - `Outside`
  - `Always On (Bypass Vehicle Detector)`
    (Press ▲ or ▼ to scroll up and down the list)

Notes:
Order taking modes are described in the Operation section.

3M recommends you do not set up more than three order taking modes.

Change Site Scheduling

The site schedule is the calendar of store open and closing times.

Note:
All timekeeping is done using a 24 hour clock (e.g., 6:00 p.m. appears as 18:00).

Regular Site Schedule

The regular site schedule is the opening and closing times for each day of the week and the times assigned as "Day" and "Night," which determine when the day and night volume settings change.

Perform the following procedure to set the regular site schedule:

- Enter the base station configuration mode, see page 11.
- Navigate to `10 Site Scheduling` > `Regular Site Schedule`.
- Change the value for each day of the week and each of the four defined fields (`Open`, `Day`, `Night`, and `Close`).
  (Press ▲, ▼, ◄, and ► to scroll up and down the list).

> **Note:**
> The greeter will not play messages while the store is closed, except for the (built-in or custom) store closed message.

Holiday/Exception Schedule

The holiday/exception schedule can be used to identify up to 12 days in the year on which the store schedule is different than it would have been otherwise. The holiday/exception schedule should be updated at least once a year to ensure it conforms to the current year's calendar.

Perform the following procedure to set the holiday/exception schedule:

- Enter the base station configuration mode, see page 11.
- Navigate to `10 Site Scheduling`.> `Holiday/Exception Schedule`.
- For each day that needs a non-typical schedule, enter the three-letter month and two digit date under Date, then change the open and close times on the line to the right of the date.
  (Press ▲, ▼, ◄, and ► to scroll through the fields.)

Change Site Information

Site information is useful for warranty registration and to support service calls. This information is most useful when the system has an internet connection. Tech Services can use it to identify and contact the store when it receives a service request. All information is entered free-format using the numeric keypad. To type upper case letters, use the Shift key.

Perform the following procedure to change the site information:

- Enter the base station configuration mode, see page 11.
- Navigate to `11 Site Information`.
- For each field that needs to be modified, enter the appropriate data.
  (Press ▲, ▼, ◄, and ► to scroll through the fields.)

Change Self Monitoring

Self-monitoring is a function available for all systems where the base station is continuously connected to a store Ethernet connection. The base station keeps track of all of the headsets in the system, looking for periods of extended non-use that may indicate a headset problem that needs attention.

Perform the following procedure to enable and configure self monitoring:

- Enter the configuration mode, see page 11.
- Select `12 Self Monitoring`.

- To enable or disable self monitoring, change the value for `Self Monitoring Enabled?` to `Yes` or `No`.
- If self monitoring is enabled:
    - Select a value for `Number of Inactive Days Allowed`. The range is 7 to 255. The number represents how many days of inactivity must pass for any given headset before the system interprets the absence as a problem and forwards the information to 3M.
    - Select a value for `Resend Error Reports`. Your choices are `Never`, `Every Day`, `Every Week`, or `Every Month`. This is the frequency that the base station will attempt to resend the error message until the error condition is corrected.

Change Passcodes

User and installer passcodes can be individualized for better security control against unauthorized changes. The system has a default user and a default installer passcode pre-installed. Check your documentation for those passcodes.

User Passcodes

If you enter a user passcode, you have full access to the Change User Passcodes menu. You can change or delete any passcode.

Perform the following procedure to set up and/or change user passcodes:

- Enter the configuration mode, see page 11.
- Select `13 Change Passcodes` > `Change User Passcodes`.
- Identify the user number you want to change, then press ▲, ▼, ◄, and ► as necessary to scroll to the desired passcode.
- Enter a new four-digit passcode in place of the old passcode.
- Press **Enter** to implement the change or press **Mode** to abandon the change and leave the passcode at its previous setting.

Two Base Station Setup

In any installation where there are two base stations (tandem, side-by-side, or dual drive thrus), register all headsets to Base Station #1. This ensures that changes to split and cross lane mode and the order taking mode are synchronized between the two base stations. The difference between split lane and cross lane modes in this situation is:

- Split lane mode is intended for a drive thru with two order takers. Each order taker hears beeps only for the lane for which the headset is configured: beeps from the other lane will not be heard.
- Cross lane mode is intended for a drive thru with one order taker who will hear beeps for both lanes on one headset. You can configure the system to permit non-order takers to hear orders and pages from one or both sides. See "Order Takers and Page Messages in Cross Lane Mode," page 22.

Installer Setup

Installer setup is a special group of setup options typically only used by the installer or in case of complete system restoration or backup.

Load Installation Settings

Installation settings are a complete set of configuration data that the installer can save after the initial installation configuration is completed. It is essentially a backup save point in case configuration settings are inadvertently changed in ways that are not easy to identify or correct.

To load the installation settings:

> **Important Note:**
> By performing this procedure you will be erasing the current configuration and reloading the configuration that was last saved, likely when the system was first installed.

- Enter the configuration mode, see page 11.
- Select `14 Installer Setup`.
- Change the value for `Load Installation Settings` to `Yes`.

Save Installation Settings

> **Note:**
> This function is only available to installers.

Perform the following procedure to save the current configuration into permanent memory over the existing installation settings.

> **Important Note:**
> By performing this procedure you will be erasing the existing saved installation settings, making it impossible to revert to the settings that were saved after installation.

- Enter the configuration mode, see page 11.
- Select `14 Installer Setup`.
- Change the value for `Save Installation Settings` to `Yes`.

Technical Service Message

Perform the following procedure to customize the Service Screen message.

- Enter the configuration mode, see page 11.
- Select `14 Installer Setup`.
- Change the value for `Use Custom Tech Service Message?` to `Yes` or `No`.
- If you chose `Yes`, enter the customer message.

Reset Timer Database

Perform the following procedure to Reset the Timer module database.

- Enter the configuration mode, see page 11.
- Select `14 Installer Setup`.
- Change the value for `RESET Timer Database` to `Yes`.

> **Note:**
> Resetting the Timer module Database will clear ALL vehicle timing data.

Factory Setup (Restore Factory Defaults)

Perform the following procedure to restore all of the configuration settings to the factory default settings. This procedure should be performed only if the current configuration and the saved installation settings are unusable.

> **Important Note:**
> By performing this procedure you will reset the system to the initial configuration, making it impossible to revert to the settings that were saved after installation.

- Enter the configuration mode, see page 11.
- Select `15 Factory Setup`.
- Change the value of `Restore All Factory Settings` to `Yes`.

Create and Load Templates

You can save an entire base station configuration as a file on a PC and use the file as a template for other base stations. You must be using a PC to use templates.

Reboot System

Perform the following procedure to cleanly power down, then power up without unplugging the system:

- Enter the configuration mode, see page 11.
- Select `17 Reboot System`.
- Change the value of `Power Cycle Complete System` to `Yes`.
- Press **Service**.

Check the Revision Levels

Perform the following procedure to view the revision levels and serial numbers of your base station:

- Enter the configuration mode, see page 11.
- Select `18 Revision Levels`.

Activate the Backup Intercom

Many systems include a wired backup intercom system that can be used if the main wireless system cannot be used. If your system has a backup intercom system, perform the following steps to activate it:

- Remove the base station cover.
- Press and latch the two switches named "BACKUP INTERCOM."

Operation

Headsets

Overview

This chapter provides instructions for using headsets with an 3M™ Wireless Communication System Model XT-1 after the system has been installed, configured, and powered on.

Component Identification and Description
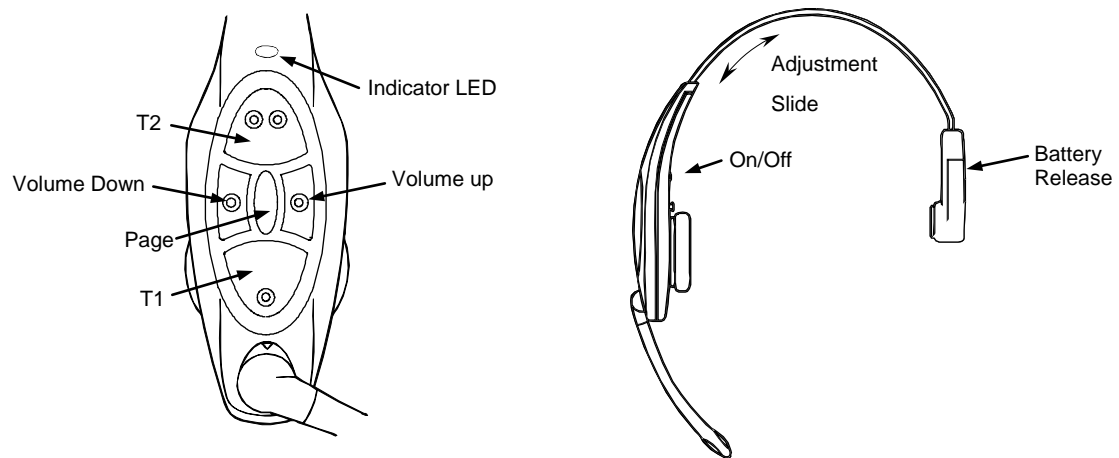
Figure 2

- **Adjustment Slide**: Push or pull to adjust for a comfortable fit.
- **Indicator LED**: Indicates operating status of the headset. See Indicator Light Modes below.
- **T1 and T2** (Talk:buttons): Connect you to the order point.
    1. When there are two order points, T1 connects to order point 1 and T2 connects to order point 2.
    2. When there is only one order point, T1 and T2 both connect to the order point.
    3. If you are in Manual Latching or Hands Free modes, the talk button establishes you as the order taker; and while you are the order taker, the talk button is an order point mute button (each tap turns mute on or off to the order point).
- **On/Off**: Turns the headset on and off. Hold for 3 seconds to turn off.
- **Volume**: The up button increases volume, the down button decreases volume.
- **Page**: Has several functions related to in-store communication:
    1. Talk to all headsets on the same lane (or both lanes depending upon the configuration), but not to the order point. Press and hold the page button during normal operation to communicate with other headsets. There is an option in Global settings to allow the order taker to hear or not to hear page messages.

2. Release the order-taker. If the order taker taps the page button, he or she is no longer the order taker. The next person to press a talk button becomes the order taker.
3. Enter page monitor mode, which permits you to hear only pages and not any order taking activity. Starting with the power off on the headset, press and hold the page button while turning it on to enable page monitor mode. The headset will stay in this mode until it is powered off and back on.
4. Enter temporary page monitor mode. If an operator (but not the active order taker) taps the page button, the headset will hear only pages and not any order taking activity. The headset will stay in this mode until the operator taps the talk button.

- **Battery Release**: Slide up to remove the battery.

Indicator Light Modes

Use the table below to understand the meaning of the indicator light on the headset:

Indicator	Mode Description
Off (no light)	Indicates power is off. It will turn off automatically if it fails to register within two minutes or if the battery dies.
Solid Green	Headset is signed on, standby, Lane 1.
Solid Amber	Headset is signed on, standby, Lane 2.
Solid Red	Headset is in transmit mode.
Flashing Green (changed from flashing amber)	Headset has not registered, but found an open base to which it will try to register.
Flashing Green (immediately after power on)	Headset is registered but has not yet synchronized or signed on to the base station.
Flashing Amber	Headset is not registered and has not found a base station.
Steadily Flashing Red	Headset is the active order taker, but the microphone is muted.
Single Red Flash (changed from flashing green)	Headset has successfully synchronized and signed on with a base station ("Lane 1" or "Lane 2" will also be heard in the earpiece).
Alternating Flashing Green and Amber	Page Monitor Mode.

Fitting the Headset

Make the following adjustments to the headset to make it comfortable, less likely to fall off, and easy for you to hear and speak clearly:

1. Rotate the ear cup and ear pad so that the indicator on the ear cup is aligned to the back of your head.
2. Adjust the size of the headband until the ear pad rests against one ear and the battery side pad rests just above the other ear.
3. Rotate the microphone boom up or down so its tip is in line with the corner of your mouth. Do not bend the boom.
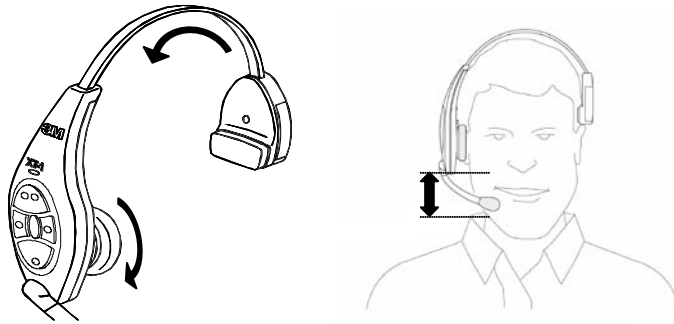
Figure 3

Replace the Battery

It is important to have fully charged batteries in the headset. When a battery is low, the system plays a "change battery now" message in the headset every 15 seconds.

Note:
When installing a battery, make sure it is fully charged. It is important to remember that an *unused* 3M™ Wireless Communication System Model XT-1 battery loses five percent of its charge per week. If a battery has not been used for several weeks, make sure to charge it prior to use.

---

1. Slide and hold the battery release.
2. Remove the discharged battery from the battery housing.
3. Insert a ***fully charged battery*** in the housing with the notch facing the battery release. Make sure the battery is fully inserted (battery release clicks).
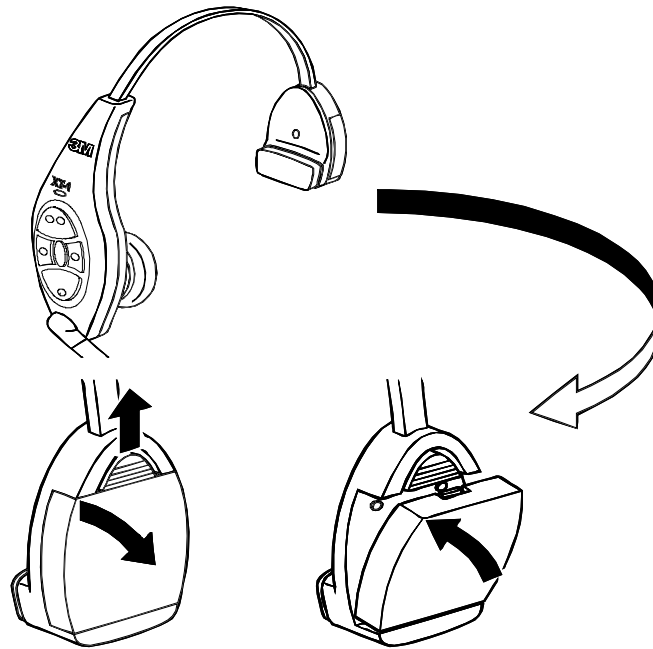
Figure 4

Out of Range

In addition to "Change Battery Now" you may also hear a message for "Out of Range." If you hear this in your headset, you need to move closer to the Base Station. You will know you are in range when you hear the message "Lane 1" or "Lane 2."

Cleaning

For good health and hygiene, you should clean the headsets regularly. Here are some guidelines:

- Check the headsets every day. If they are dirty, clean them. Even if they don't look dirty, every headset should be cleaned on a regular schedule.
- Before cleaning, remove the soft foam ear pad and microphone windscreen. If used.
- Use a soft cloth and mild cleaning solution to wipe the surfaces clean. We recommend using a 3M™ 5040/7065 Cleaning Wipe or a Scotch-Brite® High Performance Cloth lightly dampened with 3M™ Food Service Degreaser, 7L.
- Remove stubborn particles from switches and clear plugged speaker holes with a soft toothbrush.
- Gently clear plugged holes in the microphone tip with a wooden toothpick.
- Do NOT soak the headset or immerse it in water; you might damage the electronics.
- Do NOT bend the battery contact or microphone boom.

Base Station Setup

Most of the base station configuration is performed during installation by the installer or by a manager. The setup options listed in this section are only those that can be performed without entering the passcode-protected areas of the base station.

The following procedures are all performed at the base station using the base station keypad. The base station must be turned on (plugged in) and in Run Mode without a security passcode entered.

The following diagram shows how the display on the base station looks in Run Mode.

```
13:25 WED,NOV/16/2005 | MODE< ML/PTT >
NOISE REDUCTION [LOW] | LANE 2 <SPLIT>
GREETER PLAYING MSG 1 | VOLUME < DAY >
```
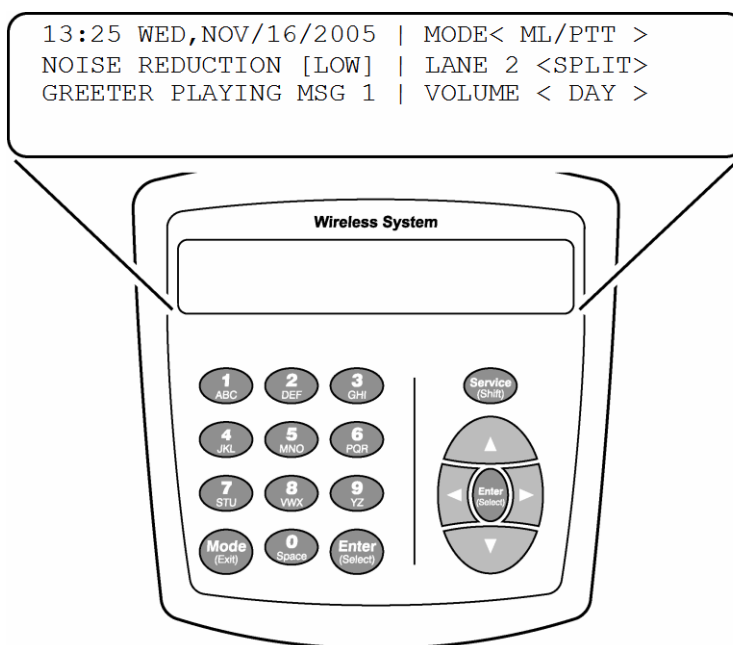
Figure 5

Navigating in the Base Station in Run Mode

To navigate the base station in Run mode you only need to use **Enter**, **Mode**, and the directional arrow buttons: up ▲, down ▼, left ◄, and right ►. The remaining buttons function only in manager or installer configuration modes.

Change Order Taking Mode

There are seven order taking modes, which offer different combinations of speaking, listening, automatic standby, vehicle detector, and order point modes.

Perform the following procedure to switch to a different order taker mode:

1. Press ▼ until the Mode selection is highlighted.
2. Press **Enter**.
3. Press ▼, ▲, ►, or ◄ to select a new order taker mode. Your choices are ML/PTT, ML/MLT, AL/PTT, AL/MLT, Hands Free, Outside, and Always On. See "Explanation of Order Taking Modes," and "Which Order Taking Mode to Select" below.

> **Note:**
> Your system may be configured with fewer order taking mode options than the number described in this section. You must enter User configuration (passcode required) to enable or disable individual order taking modes.

Explanation of Order Taking Modes

The following table shows how each order taking mode affects components and settings in the system. The paragraphs that follow the table explain the meaning of information in the table.

Order Taking Mode	Listen	Talk	Vehicle Detector	Automatic Standby	Order Point
ML/PTT	Manual	Push to Talk	Presence	On	Used
ML/MLT	Manual	Manual Latching	Presence	On	Used
AL/PTT	Automatic	Push to Talk	Presence	On	Used
AL/MLT	Automatic	Manual Latching	Presence	On	Used
Hands Free	Automatic	Automatic	Presence	On	Used
Outside	Manual	Manual Latching	Ignored	Off	Not Used
Always On	Always on	Manual Latching	Ignored	Off	Used

Listen: Auto, Manual, and Always On

In *Manual Listen* (ML), the operator must press the talk lane button to turn on the order point microphone (to hear the customer order). The order point microphone will remain on until the vehicle leaves.

In *Automatic Listen* (AL), the order point microphone turns on and stays on whenever a vehicle is detected. The order point microphone will remain on until the vehicle leaves.

In *Always On*, the order point speaker is always on so the customer can always be heard regardless of whether a vehicle is detected at the order point. *Always On* is a special failure mode that is useful if the vehicle detector cannot be used.

Talk: Manual Latching, Push to Talk, Automatic

In *Manual Latching Talk* (MLT), the operator must press and release the talk lane button to "latch" or lock the headset microphone in the on position. The operator can continue to speak hands free until the talk button is pressed and released again. When *Automatic Standby* is on (see below), the microphone will also be turned off when the vehicle is no longer detected.

In *Push to Talk* (PTT), the operator must press and hold the talk button while speaking into the headset microphone. Releasing the button turns off the microphone.

In *Hands Free*, the headset microphone is on whenever the order point vehicle detector detects a vehicle. Because *Automatic Standby* (see below) is also on when *Hands Free* is On, the microphone is turned off when the vehicle is no longer detected.

Automatic Standby: On and Off

When Automatic Standby is on, the order taker's microphone and the order point microphone turn off when the vehicle is no longer detected.

Vehicle Detector: Presence or Ignored

When the vehicle detector is on (in presence mode), a car entering the order point is sensed and the ordering system reacts according to the order taking mode. When the vehicle detector is off (ignored), Automatic Listen, Automatic Talk, and Automatic Standby are unavailable. Only *Outside* or *Always On* order taking modes are recommended when the vehicle detector cannot be used.

Order Point: Used or Not Used

When the order point is used, customers can order using any of the typical order taking modes, with the exception of the Outside mode (see below for explanation).

Which Order Taking Mode to Select

Each order taking mode is designed for a specific purpose so you do not need to manually select the modes for the individual components and potentially end up with a non-working configuration.

ML/PTT, *ML/MLT*, *AL/PTT*, *AL/MLT*, and *Hands free* should be selected for typical ordering configurations where all of the drive thru employees are inside of the building and all of the equipment is working properly. The choices between them tend to vary according to the number of people available, how many duties they must perform simultaneously, and possibly employee preferences.

If you plan to have the order taker standing outside with a headset, *Outside* mode is the best choice. The order point speaker, microphone, and vehicle detector are disabled. This allows hands free communication to staff inside the store for order entry and/or special requests.

If the vehicle detector is not functioning properly, *Always On* mode is the best choice. The microphone at the order point is on continuously, regardless of the status of the vehicle detector. Typically, when a vehicle detector fails, it reports the presence of a vehicle continuously, which functions as (bookmark).

Change Lane Mode

Perform the following procedure to select the lane mode that is appropriate for your current situation. Descriptions for the two modes follow the procedure.

1. Press ▼ until the `Lane X` selection is highlighted (where X is the lane number, 1 or 2).
2. Press **Enter**.
3. Press ▼ or ▲ to select between the two possible lane modes: `CROSS` and `SPLIT`.
4. Press **Enter** to implement the change or press **Mode** to abandon the change and leave the previous lane mode in effect.

Split Lane

Split Lane mode is the preferred mode for heavy volume because it essentially separates the communications between the two base stations.

- Operators will only hear a signal from the order point last used: single repeating beep from order point 1 or a double repeating beep from order point 2.

- The headset buttons T1 and T2 communicate only with order point 1 and order point 2, respectively.
- For paging, pressing the page button on a lane 1 headset is only heard by other lane 1 headsets. Likewise pressing the page button on a lane 2 headset is only heard by other lane 2 headset.

Notes:
A headset becomes a "lane 1" or "lane 2" headset by momentarily pressing and releasing the T1 or T2 button.

You can configure the base stations to permit paging to be heard by both lanes. Refer to configuration section of the manager's guide.

Cross Lane

Cross Lane mode is the preferred mode for lighter volume or whenever one order taker needs to answer both order points: essentially, the two order points cross over.

- Operators will hear signals from both order points: single repeating beep from order point 1 or a double repeating beep beep from order point 2.
- The headset buttons T1 and T2 communicate only with order point 1 and order point 2, respectively.
- For paging, pressing the page button is heard by all headsets.

Change Volume Mode

If you have night volume reduction in use on your system, the volume change happens automatically at the set "Day" and "Night" times. However, you can change the volume mode manually without changing the day or night time setting.

Perform the following procedure to change between night and day or day and night volume:

1. Press ▼ until the `Volume` selection is highlighted.
2. Press **Enter**.
3. Use the arrows to select between `DAY` and `NIGHT`.
4. Press **Enter** to implement the change or press **Mode** to abandon the change and leave the previous setting in effect.

Maintenance

Headset

Replacing the Ear and Headband Pads

To replace the ear pad, remove the worn/damaged ear pad from the ear cup and replace it with a new pad.

Headband Pad

Ear Pad

Figure 6

To replace the headband pad, remove the worn/damaged pad by peeling it from the back of the battery housing. Remove protective backing from new pad and press it into place on the back of the battery housing.

Battery Charger

Location

The battery charger should be placed on a flat surface such as a desktop or table in a clean, dry environment.

Cleaning the Contacts

If the indicators fail to light during charger operation, clean the contacts using a water–moistened cotton swab.

Batteries

Care, Handling and Storage

- Avoid dropping batteries.
- Do not carry batteries in your pockets or leave them in hot, damp or dirty places.
- Clean the battery contacts periodically using a water–moistened swab.
- Be careful not to short the battery contacts together.
- Do not set the batteries contact–side down on a bare metal countertop.

Low Battery Message

When the battery voltage is too low, the headset sounds a "change battery now" message at fifteen-second intervals to alert the operator to install a fully charged battery. The "change battery now" message continues for two minutes after which the headset turns off automatically to prevent damage to the batteries.

Charging Batteries

To charge a battery, insert the battery in one of the charging slots.

- The indicator lights RED to indicate the battery is charging.
- The indicator lights GREEN to indicate the battery is charged.

Note:
Discharged batteries require 3 ½ hours to charge.

Note:
When the GREEN indicator lights, the battery is approximately 80% charged. An additional 1/2 hour of charging is required to achieve maximum charge.
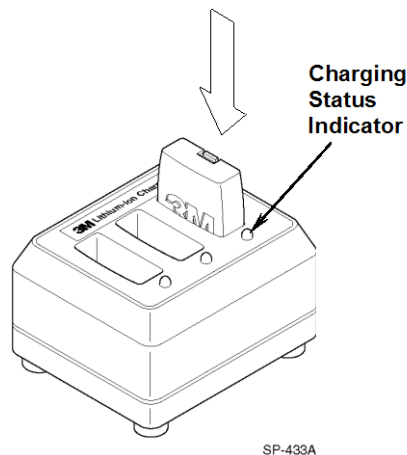
Disposing of Batteries

To help protect the environment and conform to regulations, 3M™ Wireless Communication System Model XT-1 rechargeable batteries must be returned to 3M at the end of their useful life. Contact your 3M representative for additional instructions.

Making Sure Batteries are Ready for Use

Follow these tips to make sure batteries are always ready for use:

- Have an extra battery for each headset. This helps ensure that a fully charged battery is always available.
- Recharge a low battery as soon as it is removed from the headset. When a battery is low, repeat messages are heard in the headset for 2 minutes, and then the headset shuts off.
- Keep the battery and charger contacts clean. Use a cotton swab and approved cleaner in accordance with manufacturer's instructions to clean the contact surfaces.
- Remember that a battery recharge takes approximately 3 ½ hours.
- Avoid removing and reinserting batteries while they are charging (charging status indicator is RED).
- Remember that batteries discharge fastest during Talk and Page operation. Avoid unnecessary communications.
- Always use the On/Off switch to power off the headset before removing the battery.

Important Information about Rechargeable Batteries

Keep the following information in mind as you operate the system and as you establish operating procedures:

- Each 3M™ Wireless Communication System Model XT-1 battery contains an internal protective device to prevent unsafe discharge rates. But, as with any battery, avoid shorting across the battery contacts with metal items. Never carry a battery in a pocket or place it in a drawer where it can accidentally be shorted by keys, coins etc.
- Have adequate charging capacity for the number of headsets in your system. One 3-slot battery charger will handle up to three headsets. Use of more than three headsets requires a 6-slot battery charger.
- Batteries perform best at moderate temperatures. Extremes of heat and cold reduce their performance.
- An unused 3M™ Wireless Communication System Model XT-1 battery loses five percent of its charge per week. Batteries that have not been used for several weeks should be recharged before use.

The four-character date code stamped on each 3M battery (wwyy) refers to the week and the year the battery was manufactured. Batteries are generally usable for two years beyond that date. Batteries used more often will need replacement sooner.

⚠ **WARNING**
Do not open, crush, expose to heat above 200 ⁰F or incinerate the battery.

Troubleshooting

Headset Indicator Lights

The following table describes the operating modes of the headsets according to the indicator lights. Use it as a troubleshooting reference.

Indicator	Mode Description
Off (no light)	Indicates power is off. It will turn off automatically if it fails to register within two minutes or if the battery dies.
Solid Green	Headset is signed on, standby, Lane 1.
Solid Amber	Headset is signed on, standby, Lane 2.
Solid Red	Headset is in transmit mode.
Flashing Green (changed from flashing amber)	Headset has not registered, but found an open base to which it will try to register.
Flashing Green (immediately after power on)	Headset is registered but has not yet synchronized or signed on to the base station.
Flashing Amber	Headset is not registered and has not found a base station.
Steadily Flashing Red	Headset is the active order taker, but the microphone is muted.
Single Red Flash (changed from flashing green)	Headset has successfully synchronized and signed on with a base station ("Lane 1" or "Lane 2" will also be heard in the earpiece).
Alternating Flashing Green and Amber	Page Monitor Mode.
Red – Orange – Red – Green - Red – Orange – Red – Green..	Headset registered to four base stations. Perform the following procedure to clear the headset registration data: 1. Start with the Headset powered on. It does not have to be in sync with any Base Station. 2. Press and HOLD the power button. 3. Press and release the T1 button 2 times. 4. Press and release the T2 button 2 times. 5. Release the power button. The Headset LED will illuminate to solid red for 2 seconds and then it has been cleared.
Red + 4sec blank + Red + 4sec blank……..	The Base Station you are trying to register your headset to, has more than 20 headsets registered already Follow the steps below to remove any registered headsets that are not in use any more. 1. Log into the Base Station 2. Press the Mode key till you see the System Menu 3. Select 04 Registration 4. Select 02 Remove Headsets. 3. Scroll to the number of the headset you want to un-register. 4. Press Enter.

General Troubleshooting

Problem	Possible Cause	Solution
No communications. All headsets have green LED is flashing.	The base station has lost power.	Make sure the power transformer is plugged into the wall outlet and into the base station power receptacle. If the LCD display does not come on, check for power at the wall outlet.
	Headsets are not registered to Base Station.	Register headsets
	The Base Station is defective.	Call for authorized service.
A single headset has green LED flashing	Headset is not registered to base station.	Register the headset.
	Defective headset.	If the other headsets register OK, the single headset needs repair.
	Headset has lost reception to the base station	Move to a line-of-sight location to establish communications again.
No vehicle alert tone in all headsets.	No power to the external vehicle detector.	Plug the vehicle detector into power outlet or replace the detector fuse.
	Vehicle detector is "locked up."	Remove power to vehicle detector for a few seconds to reset the detector.
	The base station alert tone volume is set too low.	Adjust alert tone volume.
	System is in Always On order taking mode.	Change the talking mode.
All headsets will not go into Standby (silence) when the vehicle leaves the menu sign.	This is normal when a pulse (air switch) type of vehicle detector is used.	Press the Page switch to silence the menu microphone.
	There is a large metal object near the loop in the driveway (if a loop is used).	Remove the object.
	The Loop detector is "locked up."	Unplug the loop detector from the AC outlet and plug it back in to reset the detector.
	Defective vehicle detector.	Call for authorized service.
	System is in Always On order taking mode.	Change the talking mode.
Audio on all headsets cuts out or is interrupted.	The Backup Intercom is on (the switch is engaged).	Disengage the Backup Intercom switch on the base station.
	Loose or frayed wiring.	Call for authorized service.
	Poor location of Base Station antennae (behind large metal objects, too far from work area, etc.).	Relocate the Base Station, or antennae.
Inbound audio cuts out (but outbound audio is okay)	The AEC level is too high.	Reduce the AEC level.
	The headset is too close to loud ambient noise.	Move the headset away from sources of loud ambient noise.
No Talk or listen from the menu sign when using the backup wired intercom. The 3M™ Wireless Communication System Model XT-1 works OK.	The backup switch on the base station is not in the correct position.	Turn the backup switch ON.
	No power to the backup intercom.	Turn the backup intercom on or plug in its power transformer.
	The volume controls are set too low on the backup intercom.	Turn the volume controls up.

Problem	Possible Cause	Solution
	Defective backup intercom or wiring.	Call for authorized service.
No Talk or Page to other headsets from a single headset, or Talk or Page buttons require excessive pressure to operate.	Worn or defective Talk or Page switch.	Call for authorized service.
	Defective headset.	
Low Talk volume on a single headset.	The holes in front of the microphone are plugged with dirt or grease.	Call for authorized service.
	Operator is not positioning the microphone correctly.	Adjust/reposition the headset microphone(s).
	Defective headset.	Call for authorized service.
	Volume setting on headset is too low.	Power off and power on headset to reset volume level.
Louder Talk volume or feedback from a single headset.	Volume setting on headset is too high.	Power off and power on headset to reset volume level.
	The holes in back of the microphone are plugged with dirt or grease.	Call for authorized service.
The "hands free" function does not work.	The system is operating in half duplex mode.	Hands Free is disabled in half duplex mode.
	Hands free order taking mode not selected.	Select hands free order taking mode in the base station.
No vehicle alert tone in headset.	Backup switch not completely pressed (i.e., one of the other two buttons is pressed).	Press the other button into the correct location.
Headset(s) amber LED flashing.	Headset(s) not registered.	Register the headset(s).

Battery and Battery Charger Troubleshooting

Problem	Possible Cause	Solution
No lights come on when a battery is inserted into charger.	Dirty contacts on battery or charger.	Clean contacts on battery and charger.
	No power to charger.	Make sure power transformer is plugged into charger and a "live" outlet.
	Defective battery.	Try a known good battery.
	Defective charger.	Call for authorized service.
Short battery life.	Worn out batteries.	Replace battery.
	Wrong type of power transformer used for charger.	Make sure power transformer is marked "Secondary Voltage 14 VAC."
The green light on the charger never comes on.	Defective battery.	Replace the battery.

Appendix: Declaration of Conformity

Declaration of Conformity

The Company Name	
3M Company	
The Company Address	
3M Building & Commercial Services Division	
3M Center - Building 250-03-W-04	
St. Paul, MN 55144-1000	

Declares that the product(s):

Product Name and/or Model Number(s)
3M Wireless Communication System Base Station - XT-1D
3M Wireless Communication System Headset - XT-1C
3M Digital Signal Enhancer, Omnidirectional (accessory item)
3M Digital Signal Enhancer, Extender, Directional (accessory item)
3M Timer Display – 1DE2
Type and/or Description
Wireless Communications System. Operating in the 2401.92 MHz to 2479.68 MHz frequency range, 75 channels with 900kHz channel spacing, frequency Hopping Modulation. External power supply 230 V/50 Hz / 12 VDC. Consummate power, 12 V 4A = 48 W.   Digital Range Extender is an accessory item antenna that will extend the working distance from the 3M Wireless Communication System Base Station. Timer Display is an accessory that is used to display the content of an order.

Conform(s) to the following specification

Directives
RTTE Directive (1999/5/EC)
Low Voltage Directives (2006/95/EC)
RoHS Directive (2002/95/EC)
WEEE Directive (2002/96/EC)
Year in which CE mark first affixed
2008
Standards
EMC Emissions:
EN 301489-1   Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
EN 301489-17
EN 55022   Radiated Emissions, Class A, 30 MHz – 1000 MHz
EN 61000-3-2   Harmonic Emissions
EN 61000-3-3   Flicker
EN 50392   Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz - 300 GHz)
EMC Immunity:
EN 301489-1   Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
EN 301489-17   Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment
EN 55024   Information technology equipment - *Immunity characteristics - Limits and methods of measurement*
EN 61000-4-2   Electrostatic Discharge (ESD)
EN 61000-4-3   Radiated Immunity
EN 61000-4-4   Electrical Fast Transient (EFT)
EN 61000-4-5   Surge
EN 61000-4-6   Conducted Immunity
EN 61000-4-11   Voltage Dips and Interrupt
Telecom:
EN 300 328   Electromagnetic compatibility and Radio Spectrum Matters (ERM); wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; harmonized EN covering essential requirements under Article 3.2 of the R&TTE Directive
Safety:
IEC 60950-1:2001 Information technology equipment - Safety - Part 1: General requirements
EN 60950-1:2001 Information technology equipment - Safety Part 1: General requirements
AS/NZS 60950-1: 2003 Information technology equipment - Safety - Part 1: General requirements

Signer of Declaration Sue Woulfe *Susan L Woulfe*	**Title** **Technical Director** **Building & Commercial Services Division**
Signature *Susan L Woulfe*	**Date** *14 Oct 2011*

Appendix: Base Station Specifications

Physical

Parameter	Specification or Requirement
Dimensions (l x w x d)	20 in. x 11½ in. x 2 in. (51 cm x 29 cm x 5 cm)

Electrical

Parameter	Specification or Requirement
Input Power	120 VAC, 50/60 Hz, 15A Standard 3-prong outlet required (station includes AC adapter)
Radio Frequency	2.4 GHz ISM (**Does not require FCC license**)
Speaker outputs	5W

Functional

Parameter	Specification or Requirement
Maximum number of order points per base station	1
Maximum number of headsets per base station	more than 15
Maximum number of vehicle detectors per base station	3
Maximum number of greeter modules per base station	1
Maximum number of timer vehicle detector modules per base station	3

Appendix: Greeter Module

Greeter Setup

The Greeter Module is an accessory used to record messages and play them back, either when a vehicle arrives (GREETER, CLOSED, FORWARD), when an event occurs, such as a door opening (ALERT), or periodically on a schedule (REMINDER).

The Greeter Module has enough memory to store 64 seconds of audio, broken into sixteen 4 second messages. The message types available are:

GREETER – Each Greeter message takes up two 4 second message slots for a total of 8 seconds. Greeter messages are restricted to ODD message numbers (i.e. 001, 003, 005, 007, 009, 011, 013, and 015). There can be a maximum of 8 Greeter messages.

REMINDER – Each Reminder message takes up one 4 second message slot for a total of 4 seconds. Reminder messages can be recorded in any of the 16 message slots, allowing for a maximum of 16 Reminder messages.

ALERT – Each Alert message takes up one 4 second message slot for a total of 4 seconds. Alert messages can be recorded in any of the 16 message slots, allowing for a maximum of 16 Alert messages. However, the system has 4 Alert Message Input Triggers, so only 4 Alert messages can be used at any one time.

CLOSED – The custom "Store Closed" message follows all the rules of a Greeter Message.

FORWARD – The custom Tandem Lane "Pull Forward" message follows all the rules of a Greeter Message.

Note:

For a Dual Lane system, some message types are not available. The message Types available on each base station are as follows:

Lane 1 = GREETER, REMINDER, ALERT and CLOSED

Lane 2 = GREETER, CLOSED and FORWARD

Enter the Greeter Configuration Menu

All of the greeter module settings are located in the "Greeter Menu" configuration menu.

Perform the following procedure to enter the greeter configuration menu:

1. Enter the base station configuration mode, see page 11.
2. Press and release **Mode** until the `Greeter Menu` appears.

The following menu choices are available.

1. `Message Activation`
2. `Record Messages`
3. `Choose Headsets Messages Playback To`
4. `Message Daypart Definitions`
5. `Greeter Message Properties`
6. `Alert & Reminder Message Properties`
7. `Alert Message External Trigger Input`
8. `Message Names`

Message Activation

Perform the following procedure to schedule and activate GREETER and REMINDER messages.

> **Note:**
>
> This step should be done after Daypart Definitions have been configured and Messages Recorded.

1. Enter the greeter configuration menu.
2. Select 1 Message Activation.

```
Act.<NO > :MESSAGE ACTIVATION:
Msg.<001><MON> [Breakfast 1 ][GREETER]
[ Breakfast  ]<NO >▐[  Morning  ]<NO >
[   Lunch    ]<NO >▐[ Afternoon ]<NO >↓
```

3. Using the ▲, ▼, ◄, ► and **Enter** keys, select a message number and day of the week to configure. Msg.<001><MON>
4. For the selected message, set the value to "YES" for each daypart the message is active, [Breakfast] <YES> , leaving the other dayparts set to [Morning   ] <NO >
5. Repeat the daypart assignments for each day of the week. Msg.<001><TUE>
6. When done, activate the message schedule by selecting "YES". Act.<YES>
7. Repeat steps 3 – 6 for each message you wish to schedule and activate.

Record Message

After determining the number and type of messages to use in the drive-thru operation, the user will then record each message into the Greeter Module memory.

Perform the following procedure to record and playback messages:

1. Enter the greeter configuration menu.
2. Select 2 Record Messages.

```
             :RECORD MESSAGES:
Msg.<001> Type:<GREETER > [REC.] [PLAY]
        Duration:<00>    Time:[■■■■■■■■]
 Name:<Breakfast 1 >      {Mode=Exit}
```

> **Note:**
> If you store a new message in an occupied slot, the old greeter message will be permanently erased.
>
> Each recorded message can be no more than 8 seconds long (GREETER, CLOSED, FORWARD) or 4 seconds long (REMINDER, ALERT)

3. Put on a working headset with the power on.
4. Using the ▲, ▼, ◄, ► and **Enter** keys, select a message number to record. Msg.<001>.

5. Using the ▲, ▼, ◄, ► and **Enter** keys, select the message type.
   `Type:<GREETER >`. Because Greeter Messages take up two message
   slots, the screen will change to confirm the user wants to delete the
   adjacent message.

```
              :RECORD MESSAGES:
Msg.<001> Type:→GREETER ← [REC.] [PLAY]
       Duration:<00>    Time:[■■■■■■■■]
Remove Message 002? {ENTER=Yes}{Mode=No}
```

6. Using the ▲, ▼, ◄, ► and **Enter** keys, select `[Rec.]`. The screen will
   change to:

```
              :RECORD MESSAGES:
Msg.<001> Type:<GREETER > >REC.< [PLAY]
       Duration:<00>    Time:[■■■■■■■■]
 Name:<Breakfast 1 > {Service=Start   }
```

7. Press and hold the Page button on the headset.

> **Note:**
> For a Dual Lane system, ensure you have selected the appropriate Lane
> before recording. T1(Green) = Lane 1 Greeter, T2(Amber) = Lane 2
> Greeter.

8. Press and release **Service** key on the base station and speak the message
   you want to record.
9. When finished recording, press and release **Service** key, then release the
   page button.
10. The system will pad the message with "silence" to ensure no left over
    audio from an old message.
11. The new message duration is now displayed in the Duration field.
    `Duration:<03>`.
12. To hear the new greeting played back, scroll to `[PLAY]` and press the
    Service key.
13. The name of the message can also be changed on this screen. Select the
    message name field using the ▲, ▼, ◄, ► and **Enter** keys and change
    the text using the keypad.

> **Note:**
> Instead of recording a live message from a headset, you can use a message
> that was prerecorded and saved on a media recording/playback device, such as
> a CD or MP3 player or on the hard drive on a computer. Connect the device
> to the AUX AUDIO IN jack on the bottom of the base station, and use the
> device's controls to start and stop the playback by using the base station's
> Service button.

Choose Headsets Messages Playback To

Perform the following procedure if the user wants to select which headsets are
allowed to hear each REMINDER or ALERT message:

1. Enter the greeter configuration menu.
2. Select `3 Choose Headsets Messages Playback To`.

```
 :CHOOSE HEADSETS MESSAGES PLAYBACK TO:
  Msg.<011> [Reminder 1  ] [REMINDER]
[Headset 1234]<YES>▌[Headset 2020]<YES>
[XXXXXXXXXXXX]<YES>▌[XXXXXXXXXXXX]<YES>
```

3. Using the ▲, ▼, ◄, ► and **Enter** keys, select a message number to record. `Msg.<011>`.

Note:
Only REMINDER and ALERT messages are available for this function.

---

4. Using the ▲, ▼, ◄, ► and **Enter** keys, select the desired headset YES/NO field and modify. `[Headset 1234]<NO >`.

Note:
The headsets are given a default name, when registered, of "Headset SSSS", where SSSS is the last 4 digits of the headset serial number. The names can be modified in the System `08 Headset Setup` menu.

Message Daypart Definitions

The second step to configuring the greeter module is the messaging dayparts. This allows the system to play GREETER and REMINDER messages on a pre-configured schedule automatically. Perform the following procedure to define the messaging dayparts, specifying the name, start time and end time for each:

1. Enter the greeter configuration menu.
2. Select `4 Message Daypart Definitions`.

```
     :MESSAGE DAY PART DEFINITIONS:
   Message Day Part    Start      End
 01:> Breakfast   <    <06:00>  <10:00>
 02:<  Morning   >     <10:00>  <11:00> ↓
```

3. Using the ▲, ▼, ◄, ► and **Enter** keys, select a message daypart. Use the keypad to modify the Daypart Name, Start Time, and End Time.
4. Repeat for up to 12 dayparts. The daypart times can be overlapping.

Greeter Message Properties

The Greeter Message Properties menu is a collection of settings affecting the message type GREETER.

1. Enter the greeter configuration menu.
2. Select `5 Greeter Message Properties`.

```
    :GREETER MESSAGE PROPERTIES:
 Playback After Delay Of >00< Seconds.
         Playback Mode:<Alternating>
       Playback To The Headsets?<Yes>↓
```

Change Playback Delay Time

Playback delay time is the number of seconds between when the vehicle detector detects a vehicle and when the greeter begins to playback the message.

Perform the following procedure to change the playback delay time:

1. Navigate to `Playback After Delay Of >XX< Seconds` where "xx" represents the current number of seconds.
2. Change the number of seconds to a new value. The range is 0 to 15 seconds.

Change Playback Mode

Perform the following procedure to change the greeter playback mode.

1. Navigate to `Playback Mode`.
2. Change the value of the playback setting. Your choices are:
   - `ALTERNATING`—A different message plays for each vehicle that pulls up to the customer order point. Multiple messages must be selected.
   - `PLAY ONCE`—All messages selected play once for every vehicle that pulls up to the customer order point.

Set Greeter Playback through Headsets

You have the choice of allowing the greeting to be played through the headsets in addition to being played to the customer at the order point.

Perform the following procedure to enable or disable playback through headsets:

1. Navigate to `Playback To The Headsets?`.
2. Change the value of the playback setting. Your choices are:
   - `YES` - The greeting will play on the headsets as well as the order point.
   - `NO ` - The greeting will only be heard at the order point (and the monitor if selected below).

```
    :GREETER MESSAGE PROPERTIES:      ↑
      Playback Through The Monitor?<YES>
 Tone To Headsets During Playback?<NO >
Restaurant Closed Playback Message<OFF>↓
```

Set Playback through Monitor

You have the choice of allowing the greeting to be played through the monitoring speaker in addition to being played to the customer at the order point.

Perform the following procedure to enable or disable playback through the monitor:

1. Navigate to `Playback Through The Monitor`.
2. Change the value of the playback setting. Your choices are:
   - `YES` - The greeting will play on the grill monitor speaker as well as the order point.
   - `NO ` - The greeting will only be heard at the order point.

Turn on Tone to Headsets During Greeter Playback

If the greeting is not playing over the headsets, a continuous tone can be played while the customer is hearing the greeting. This permits the order taker to know when the greeting is playing and when it has stopped.

To enable or disable the tone during greeter playback:

1. Navigate to `Tone To Headsets During Playback`.

2. Change the value of the playback setting. Your choices are:
   - YES - A tone will play in the headsets while the greeting message plays to the customer at the order point.
   - NO - No tone will play in the headsets.

Turn on Restaurant Closed Playback Message

You can assign a standard message to be played to customers during hours when the restaurant is closed. The clock and store hours must be set correctly, and the actual message must be recorded as Type CLOSED, then it can be set to activate automatically whenever the restaurant is closed.

To select which restaurant closed playback message is chosen:

1. Navigate to Restaurant Closed Playback Message.
2. Change the value of the playback setting. Your choices are:
   - OFF - The factory provided "Store Closed" message is used.
   - ON - The custom recorded CLOSED message is used.

Note:
The main setting for enabling the "Store Closed" message is located in the System Menu>Global Settings>"Store Is Now Closed" menu.

```
      :GREETER MESSAGE PROPERTIES:       ↑
External Detector Playback Message>OFF<
                    Greeter Revision <03>
```

Turn on External Detector Playback Message

If an external detector is used and connected to the EXT_MSG trigger pin on the base station circuit board, you can assign a message to be played back whenever the external detector is activated.

To turn on the external detector playback message:

1. Navigate to External Detector Playback Message.
2. Change the value of the playback setting. Your choices are:
   - OFF - The external input will not trigger a message in "Original Mode".
   - <001>through<016> - Selecting a message number means the corresponding message will play when the external detector is activated, in "Original Mode".

Note:
The external inputs previously used for mode selection and external message trigger now have a dual purpose. In "Original Mode", they can still be used for their original purpose. The input can also be set to an ALERT message number and will trigger the Alert Message playback when activated.

Greeter Revision

The hardware revision of the Greeter Module is listed.

V2 Greeter Modules require XT-1 base station software version 3.00 or later to function properly.

V3 Greeter Modules require XT-1 base station software version 4.00 or later to function properly.

Alert & Reminder Message Properties

The Alert & Reminder Message Properties menu is a collection of settings affecting the message types ALERT and REMINDER.

1. Enter the greeter configuration menu.
2. Select 6 Alert & Reminder Message Properties.

```
:ALERT & REMINDER MESSAGE PROPERTIES:
 Msg.>011< [Reminder 1  ] [REMINDER]
Priority:<N> Delay:<00:00> Count:<  1>
   Repeat:<00:01:00>     Monitor:<OFF>
```

3. Using the ▲, ▼, ◄, ► and **Enter** keys, select a message number and configure the settings. Your choices are:
   - Priority
     - <Y> - means the message will enter a queue if the scheduled play time occurs during an active order. The message will play when the current vehicle departs or the call is dropped by the order taker.
     - <N> - means the message will be skipped and not play if the scheduled play time occurs during an active order.

   - Delay
     - <mm:ss> - Upon the start of a new day part, the playback of the first message will be delayed by this setting, entered in minutes and seconds. If the delay places the message start time into an active order, the message is skipped or placed into queue. If the delay places the message outside an active daypart, the message is skipped.
   - Count
     - <XXX> - Count is the number of the times the message is scheduled to be played during the current active daypart.
   - Repeat
     - <hh:mm:ss> - The repeat time, entered in hours:minutes:seconds, is the amount of time elapsed before the next scheduled message plays, with the elapsed time starting when the previous message finishes
   - Monitor
     - <OFF> - The selected message is not played to the grill monitor speaker.
     - <ON > - The selected message is played to the grill monitor speaker, if one is installed.

Alert Message External Trigger Inputs

Perform the following procedure to select the function for each of four external inputs:

1. Enter the greeter configuration menu.
2. Select `7 Alert Message External Trigger Inputs`.

```
:ALERT MESSAGE EXTERNAL TRIGGER INPUTS:
 'SPLIT/CROSS'Input Pin=>Original Mode<
'ORDER TAKING'Input Pin=>Original Mode<
   'DAY/NIGHT'Input Pin=>Original Mode<↓
```

```
:ALERT MESSAGE EXTERNAL TRIGGER INPUTS:
     'EXT_MSG' Input Pin=>Original Mode<
 NOTE: In Original Mode, This Input Will
        Ignore ALL Daypart Settings.
```

3. Change the value of each input setting. Your choices are:
   - `Original Mode` - The Greeter Message Properties setting
     determines if the EXT_MSG input plays a message.
   - `<msg name>` - Selecting a message name means the
     corresponding message will play when the selected external
     input is activated. Message choices include all messages of Type
     ALERT.

Message Names

Perform the following procedure to customize the message names. The names
can also be edited from the "Record Message" menu:

1. Enter the greeter configuration menu.
2. Select `8 Message Names`.

```
             :MESSAGE NAMES:
001:>Breakfast 1 < ▌002:<------------>
003:<Breakfast 2 > ▌004:<------------>
005:<Lunch 1     > ▌006:<------------>↓
```

```
             :MESSAGE NAMES:             ↑
007:>Lunch 2     < ▌008:<------------>
009:<Evening 1   > ▌010:<------------>
011:<Reminder 1  > ▌012:<Reminder 2  >↓
```

```
             :MESSAGE NAMES:             ↑
013:>Reminder 3  < ▌014:<Reminder 4  >
015:<Cooler Open > ▌016:<Door Open    >
```

3. Using the ▲, ▼, ◄, ► and **Enter** keys, select a message name use the
   keypad to enter each character. Advance to the next character in the
   name using the ► key.

Dual Lane Systems – Lane 2

In a dual lane system, the headsets are programmed to the Lane 1 base station,
so settings pertaining to headsets are absent from the Lane 2 base station.

The following menu choices are available.

1. Message Activation
2. Record Messages
3. Message Daypart Definitions
4. Greeter Message Properties
5. Message Names

All menus are the same, with the exception of Greeter Message Properties, adding the Tandem Pull Forward message setting.

```
        :GREETER MESSAGE PROPERTIES:        ↑
External Detector Playback Message>OFF<
Tandem Pull Ahead Playback Message>OFF<
                    Greeter Revision <03>
```

Tandem Pull Ahead Playback Message

You can assign a custom message to be played to customers at the Lane 2 order point when the Lane 1 order point is available to pull forward. The custom message must be recorded as Type FORWARD.

To select which pull ahead playback message is chosen:

1. Navigate to Tandem Pull Ahead Playback Message.
2. Change the value of the playback setting. Your choices are:
   - OFF - The factory provided "Pull Forward" message is used.
   - ON - The custom recorded FORWARD message is used.

Greeter Setup (For Systems with V2, V3, or V4 Base Station software)

Refer to Manual Version 1.6 for instruction on operating the Greeter Module with Base Station software V2, V3, or V4.

Greeter Setup (System Defaults)

Messaging Dayparts			
Daypart #	**Name**	**Start Time**	**End Time**
1	Breakfast	06:00	10:00
2	Morning	10:00	11:00
3	Lunch	11:00	14:00
4	Afternoon	14:00	17:00
5	Dinner	17:00	19:00
6	Evening	19:00	22:00
7	Night 1	22:00	24:00
8	Night 2	00:00	02:00
9	Overnight	02:00	06:00
10	24 Hours	00:00	24:00
11	Daypart 11	00:00	00:00
12	Daypart 12	00:00	00:00

Message Assignments			
Msg #	**Name**	**Type**	**Dayparts**
1	Breakfast 1	GREETER	
2	------------	GREETER	
3	Breakfast 2	GREETER	
4	------------	GREETER	
5	Lunch 1	GREETER	
6	------------	GREETER	
7	Lunch 2	GREETER	
8	------------	GREETER	
9	Dinner 1	GREETER	
10	------------	GREETER	
11	Reminder 1	REMINDER	
12	Reminder 2	REMINDER	
13	Reminder 3	REMINDER	
14	Reminder 4	REMINDER	
15	Cooler Open	ALERT	
16	Door Open	ALERT	

Alert & Reminder Properties							
Msg #	**Name**	**Type**	**Priority**	**Delay**	**Count**	**Repeat**	**Monitor**
11	Reminder 1	REMINDER	Y	0:00	1	0:01:00	OFF
12	Reminder 2	REMINDER	Y	0:00	1	0:01:00	OFF
13	Reminder 3	REMINDER	Y	0:00	1	0:01:00	OFF
14	Reminder 4	REMINDER	Y	0:00	1	0:01:00	OFF
15	Cooler Open	ALERT	N	0:00	1	0:01:00	OFF
16	Door Open	ALERT	N	0:00	1	0:01:00	OFF

Greeter Setup (Customer Settings)

Messaging Dayparts			
Daypart #	**Name**	**Start Time**	**End Time**
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

Message Assignments			
Msg #	**Name**	**Type**	**Dayparts**
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

Alert & Reminder Properties							
Msg #	**Name**	**Type**	**Priority**	**Delay**	**Count**	**Repeat**	**Monitor**
		REMINDER	Y	0:00	1	0:01:00	ON/OFF
		REMINDER	Y	0:00	1	0:01:00	ON/OFF
		REMINDER	Y	0:00	1	0:01:00	ON/OFF
		REMINDER	Y	0:00	1	0:01:00	ON/OFF
		ALERT	N	0:00	1	0:01:00	ON/OFF
		ALERT	N	0:00	1	0:01:00	ON/OFF
		ALERT	N	0:00	1	0:01:00	ON/OFF

Greeter Setup (Example Settings)

Message Assignments			
Msg #	**Name**	**Type**	**Dayparts**
1	Daily Promo	GREETER	10
2	------------	GREETER	10
3	Store Closed	CLOSED	
4	------------	CLOSED	
11	Travel Path	REMINDER	10
12	Hand Washing	REMINDER	10
16	Back Door Open	ALERT	10

Alert & Reminder Properties							
Msg #	**Name**	**Type**	**Priority**	**Delay**	**Count**	**Repeat**	**Monitor**
11	Travel Path	REMINDER	Y	0:00	1	0:30:00	ON/OFF
12	Hand Wash	REMINDER	Y	0:00	1	1:00:00	ON/OFF
16	Door Open	ALERT	N	0:00	1	0:01:00	ON/OFF

Appendix: Timer Module

This section describes the Timer Module, which is an optional accessory for the base station.

Overview of the Timer

The timer module is a hardware board and software enabling the tracking of drive thru performance. By understanding how the timer works, you will be able to use it to extract the data that is most useful to you.

Gathering and Storing Data

The timer has data storage modules into which it continuously records "events" that occur in the drive thru system. An event is any signal the base station receives from one of the other components. At the very least, each vehicle detector creates two events for every vehicle that drives across: the first event is when the vehicle is detected, the second when the vehicle is no longer detected. Other events can include additional vehicle detectors, headset talk buttons being pressed, or custom-configured events (such as back door open/close).

The timer module can store 8000 vehicles in a single lane configuration (16000 in a dual lane configuration). As the data storage fills up, the oldest data is overwritten with new data. This is approximately between 7 and 30 days of data, depending on the number of drive-thru customers the store has each day.

Accessing Timer Data

To retrieve the data from the timer, the user creates and views reports using either the front panel of the 3M™ Wireless Communication System Model XT-1 or an internet explorer browser, taking advantage of the built in XT-1 web connection. .

Access the Timer Menus

All of the timer settings are located in a top-level timer configuration menu.

Perform the following procedure to enter the timer configuration menu:

1. Enter the base station user service mode, see page 11.
2. Press and release **Mode** once for the `Timer Menu`.

Configuring the Timer System

Timer systems are very flexible and can be customized to fit most users' needs. Before you begin to collect and view timer data, the system must be configured to match the stores drive-thru layout and common terminology. For example, do you refer the customer ordering location as Order Point, Menu Point, or Menu Board? Is the total drive-thru called Lane1 or Total DT?

Drive-thru Template

3M offers a configuration selection, pre-loading default values. Choosing the layout that most closely matches your store makes the remaining configuration easier.

Perform the following procedure to initialize the drive-thru layout:

1. Access the timer menus, see above.
2. Select `6 Configure Timer` > `6 Global Settings`
3. Scroll down to the "System Configuration?" selection
4. Choose the desired drive-thru layout that most closely matches your own:
   - 1MP_2_Point (Order point, Pickup)
   - 1MP_3_Point (Order Point, Pay Window, Pickup)
   - 2MP_Y_Merge (Order Point 1, Pay Window, Pickup, Order Point 2)
   - 2MP_Tandem (Order Point 1, Pay Window, Pickup, Order Point 2)

> **Note:**
> A "*" appears after the configuration name if any of the settings have been changed from the default values.

5. For 2MP_Tandem, the user also selects which two detectors represent the Order Points.

Customizing Names

Customizing the default values to match store preferences enhances the timer system and makes evaluating timer reports easier.

Perform the following procedure to change the parameter names:

1. Enter the timer menu, see above.
2. Select `4 Customize Names`.

From this menu, you can customize the following

- Input Source Names (Vehicle Detectors)
- Report Group Names
- Day Part Names
- Shift Names

> **Note:**
> Name fields are limited to 12 characters.

Set Input Source Names

Perform the following procedure to change the Input Source Names:

1. Enter the timer configuration menu, see above.
2. Select `4 Customize Names` > `1 Input Source Names`.

Input sources are the vehicle detectors or other switches that are configured to trigger events in your system. The detectors are set up in the system during installation, but you may choose to give each input source a custom name to make it easier to identify on the display "e.g., "Lane 1 Approach."

Report Group Names

Perform the following procedure to change the Report Group Names:

1. Enter the timer configuration menu, see above.
2. Select `4 Customize Names > 2 Report Group Names`.

You can define custom report group names to make it easier to associate events with each other. For example, you may have multiple detectors on one lane and want them to be shown within the same report. In addition, an "Email" setting is available for the XT-1. Setting this value to "Yes" allows for timer data to be sent to an above store collection device. This feature is reserved for future use.

Day Part Names

Perform the following procedure to change the Day Part Names:

1. Enter the timer configuration menu, see above.
2. Select `4 Customize Names > 3 Day Part Names`.

Day parts are customized blocks of time that can overlap with shifts. Examples of day part names could be Breakfast, Lunch, Dinner, and Late Night. First customize the Day Part names, then assign the time periods using `Time Definitions.`

Shift Names

Perform the following procedure to change the Shift Names:

1. Enter the timer configuration menu, see above.
2. Select `4 Customize Names > 4 Shift Names`.

Shifts are customized blocks of time that can overlap with day parts. Examples of day part names could be First, Second, Third, or Day Shift and Night Shift. First customize the Shift names, then assign the time periods using `Time Definitions.`

Setting up Time Reports

To set up your own time reports you need to define some or all of the following parameters:

- Goal Times
- Valid Times
- Time definitions

Descriptions for each of the parameters are provided below. The basic procedure for setting up the parameters is the same for all of them:

1. Enter the timer configuration menu, see above.
2. Locate the parameter you want to change.
3. Change the parameter to the new value.

Set Goal Times

Perform the following procedure to change the Goal Times:

1. Enter the timer configuration menu, see above.

2. Select `3 Set Goal Times`.

You can set goal times for every report period that is available in the timer: full day reports, day part reports, and shift reports.

- FULL DAY Reports
  - 7 Days of the week
- DAY PART Reports
  - 8 day parts
- SHIFT Reports
  - 4 shifts

For each of these time period selections, you can then set goals for the detector or report group available.

- Any of 6 Detector Inputs, or
- Any of 6 Report Groups, or
- The Greet event

Note:
Goal times are always set in mm:ss format

Set Valid Times

Perform the following procedure to change the Valid Times:

1. Enter the timer configuration menu, see above.
2. Select `3 Set Valid Times`.

"Valid times" refers to the part of the day that the Timer System is active. Outside that period, the XT-1 system ignores all vehicle detection signals and records no data.

Valid Time is usually set to match the store's working schedule, but it can also be configured to allow monitoring of after hours drive-thru traffic.

Start and End Times for each day are set independently.

If a store is open 24 hours a day, then the valid times Start and End can be set to the same value. Any value works except "00:00". Start 00:00 and End 00:00 is reserved for a store that is closed all day. So, to indicate a store that is open 24 hours a day, we could use Start 00:01 and End 00:01.

Time Definitions

Perform the following procedure to change the Time Definitions:

1. Enter the timer configuration menu, see above.
2. Select `5 Time Definitions`.

Each day part and shift must have a start and end time. You can set the definitions to any time periods that you want to track. Time definitions must always have an earlier start time than end time.

1. `DAY PART Time Definitions`
   - 8 day parts
     - Start (mm:ss)
     - End (mm:ss)
2. `SHIFT Time Definitions`
   - 4 shifts
     - Start (mm:ss)
     - End (mm:ss)

> **Note:**
> Time definitions must always have an earlier Start Time than End Time. If the End Time is a value smaller than Start Time, it is assumed to occur the next day. Ex. Start = 6:00, End = 2:00 means Start 6:00 am, End time 2:00 in the morning the following day.

Detection Type

Because each vehicle detector can be a presence type or pulse type detector, you must ensure that the timer is configured for the correct type.

> **Note:**
> The default detector type is presence. If you do not have any pulse type detectors you should not need to change these settings.

Perform the following procedure to change the detector type:

1. Enter the timer configuration menu, see above.
2. Select `6 Configure Timer` > `1 Detection Type`.
3. Change the value of the desired detector to `Presence` or `Pulse`.

Threshold Minimum and Maximum

You can set the timer to ignore abnormally long or short events that would skew average data.

Perform the following procedure to change the minimum or maximum thresholds:

1. Enter the timer configuration menu, see above.
2. Select `6 Configure Timer` > `2 Threshold MIN` or `3 Threshold MAX`.
3. Change the value of the desired detector to a new value:
   - The range for minimum threshold is 0 to 9 seconds. Any event that is shorter than the threshold is ignored by the timer in averaging.
   - The range for maximum threshold is 2 to 9 minutes. Any event that is longer than the threshold is ignored by the timer in averaging.

Report Groups

Perform the following procedure to change the Report Groups:

1. Enter the timer configuration menu, see above.
2. Select `6 Configure Timer` > `4 Report Groups`.

For reporting purposes, detector inputs can be grouped into Report Groups. Earlier you learned how to name report groups. To setup report groups, you add detectors to each named group. You can assign up to six detectors in a report group.

There are three type of report groups:

- Independent (Starts with a unique detector input).
- Supergroup (These are combined reports, such as Lane1 + Lane 2 = Total Lane).
- Subgroup (As the name implies, this is a report of a portion of an independent group).

To configure the drive-thru report groups, perform the following steps:

3. Configure all independent Report Groups, ensuring each independent group starts with a unique detector input (i.e., If Report Group 1 starts with Order Point 1, no other Report group can contain this detection point).
4. Configure any "Subgroups", using the independent group as the parent group (i.e., "Service" can be the Pay and Pickup Windows of a 3 point single lane drive-thru).

- Configure any Supergroups, combining like groups into a combined report (i.e., Combine Lane 1 and Lane 2 into Total Lane).

Remote Displays

Perform the following procedure to change the Remote Displays:

1. Enter the timer configuration menu, see above.
2. Select `6 Configure Timer` > `5 Remote Displays`.

There are 3 sections to the remote timer display:

- Running time for current customer
- Percent of all customer times meeting established goals
- LED Detector Indicators

Running Time

For the running time, the user selects one of the following:

- Any of the 6 Detector Inputs, or
- Any of the 6 Report Groups, or
- The greet event

This selection determines which data is shown. For example:

- If the Pay Window is selected, the running time starts counting when the vehicle arrives at the Pay Window and stops when the vehicle leaves the Pay Window.

- If Lane 1 is selected, the running time starts counting when the vehicle arrives at Order Point 1 and stops when the vehicle leaves the Pickup Window (or stops if the vehicle is considered a drive-off).

When the vehicle has completed the transaction selected, the running time starts counting for the next vehicle in line, starting from the current running time which is accumulating in the background for each car in the drive-thru. The time on the remote display only stops counting when there are no more cars in the drive-thru.

In one special display mode (Group1 & 2), an indicator on the last digit is used to specify whether the running time represents a vehicle from Lane 1 or Lane 2. This mode is only valid in a 2MP_Y_Merge configuration.

> **Note:**
> The remote display can be configured to display the current running time in minutes and seconds (m:ss), or seconds only (sss).

Percent Attained to Goal

The percent attained to goal field has two selections. First, specify which detector point or report group is displayed.

- Any of the 6 Detector Inputs, or
- Any of the 6 Report Groups, or
- The greet event

Second, specify which time period is used to calculate the value from the following:

- Full Day, or
- Any of the 8 Day Parts, or
- Any of 4 Shifts.

LED Detector Indicators

The remote timer display comes with 6 LED indicator lights mapped to the 6 detector inputs. A user may configure each LED to represent a different detector input. Each indicator is unique, so each detector input can only be assigned once. LED 1 is the left most indicator and LED 6 the rightmost indicator.

Global Settings

Perform the following procedure to change the Global Settings:

1. Enter the timer configuration menu, see above.
2. Select `6 Configure Timer` > `6 Global Settings`. Several system parameters have been gathered under this heading. They include
   - Idle Time Before Resync
   - Point to Point Idle Time
   - 4 different Email Triggers (For future use)
   - System Configuration (Described in section Drive-Thru Template)

Idle Time Before Resync

This value indicates the amount of idle time in the entire drive-thru before the Timer system closes all open vehicles and starts fresh. For the system to be considered Idle, there must be no vehicle detection activity. 3M recommend a setting of 30 seconds beyond the Point to Point Idle Time setting

Point to Point Idle Time

This value pertains to an individual vehicle in the drive-thru. It is most commonly known as the Drive-Off setting. When a vehicle leaves one detection point, heading for another one, it has a certain amount of time to arrive before being considered a Drive-Off. For example:

- If the value is set to 30 seconds, a vehicle leaving the Order Point will have 30 seconds to arrive at the Pay Window. If it fails to arrive on time, the vehicle transaction will be closed and thrown out of the timer data metrics.

The Idle Time setting is not enforced until the detection point the vehicle is approaching is clear of all other vehicles. For example:

- If the vehicle is leaving the Order Point and there is already a car at the Pay Window, the 30 second limit doesn't begin until the first car leaves the Pay Window.

The Idle Time setting is necessary to prevent customer "antics" from skewing the store performance metrics. For example:

- If a customer stops to retrieve correct change or answer the cell phone in-between the Order Point and the Pay Window, the running time is unusually long and out of the control of the employees. This vehicle is removed from the averages.
- If a customer stops at the Order Point, considers ordering, but then leaves the drive-thru lane, the system uses this value to eliminate the vehicle from the queue so the next car in line provides meaningful data.

Timer Email Triggers (Future Use)

This XT-1 is capable of transmitting Timer data to an above store collection site. These email trigger settings dictate when data is transmitted. Each trigger can be enabled independent of the others.

- Every < ##> Vehicles
- Every < ##> Minutes
- Fix Time Of Day <HH:MM>
- Timer Database ##% Full

System Configuration

As mentioned previously, the system configuration field is used to apply one of a few provided drive-thru templates most closely matching each store's requirements. The following are modified when a configuration is selected.

- Custom Names
  - Report Groups
  - Timer Goals
  - Remote Display Settings

Viewing Time Reports

The main timer screen shows you the time reports configured for your system.

```
>Jun/16/2010<|< Breakfast  >|<Day Part>↑
    Lane 1    |06:00 to 10:30|Total=117
Except = 0015|AVG.|GOAL|OVER|Attained
 OrderPoint1 |1:25|1:00|0031|079.05%   ↓
```

Following is a definition of the items on the above screen:

`>JUN/16/2010<`	The date selected for the report data. The timer system shows, at a maximum, the last 7 days of data available.
`< Breakfast  >`	The time period report sub-type. The custom names that appear are user-specified during configuration.
`<Day Part>`	The time period report type. This can be `Full Day`, `Day Part`, `Shift`, `Hour`, or `OneEvent`
`Lane 1`	The report group name. The report groups names are user-specified. A typical use for group names is to separate one drive through lane from another (e.g., "Lane 1" and "Lane 2).
`06:00 to 10:30`	The time slot for the day part you are currently viewing (in this case `Breakfast`).

`Total = 0117`	The total number of vehicles counted in the data summary for the current time period.
`Except = 0015`	The number of vehicles removed from the data summary for the current period. Typically Drive-on or Drive-off cars.
`OrderPoint_1`	The name of the input source for which the report data pertains. This can be any of the 6 detectors, Greet Event, or any of the 6 report groups.
`AVG.` `1:25`	The average time of the input source (in this case, `OrderPoint1`) currently displayed over the time period selected.
`GOAL` `1:00`	The goal time of the input source (in this case, `OrderPoint1`) currently displayed.
`OVER` `0031`	Total number of vehicle times that have exceeded the goal time.
`Attained` `079.05%`	Percentage of vehicle times meeting the goal time. (Total-Over)/Total

When viewing the Timer Report screen, pressing the Service key on the keypad rotates between all Report Groups configured for the Timer System. The name field, located under the date, will advance to the next Report Group, and the timer data values re-calculate. If there are no points assigned to a Report Group, it is skipped in the rotation.

When viewing the Timer Report screen, pressing the Up or Down arrows rotates between all point defined in the selected Report Group. For example, if the store is configured for a `2MP_Y-Merge` configuration, and `Lane 1` is the Report Group selected, the rotation would be:

- Group Total
- OrderPoint1
- Pay Window
- Pickup Win
- Greet Event
- Group Total

Index

Product Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application. Warranty and Limited Remedy: 3M warrants that each 3M product will be free from defects in material and manufacture for 90 days from the date of purchase from 3M's authorized distributor. 3M MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If a 3M product does not conform to this warranty, the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price. Limitation of Liability: Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted.

3M

Building and Commercial Services Division
St. Paul, MN 55144-1000
1-800-328-0033
www.3M.com/foodservices